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# Book Floods and Comprehensible Input Floods: Providing Ideal Conditions for Second Language Acquisition

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**Abstract**

Book Floods and Comprehensible Input Floods: How the Fiji Reading Experiment Provided Ideal Conditions for Second Language Acquisition

In the field of second language (SL) learning there is now little argument that one of the ideal conditions for learning is the provision of ample language input, whether it is oral or written. The Fiji "Book Flood" was one of the earliest studies of the effect of the provision of opportunities for regular reading in the classroom on growth in English, a second language, and it strongly supported the above observation.

The article will examine the criticisms about the provision of only comprehensible input and the need for learners to focus on form also. It will argue that the Fiji Book Flood provided ideal conditions for both comprehensible input and for focus on form. The findings showed that sustained regular reading, by Grade 4 and 5 students in 8 schools, accelerated the development of second language proficiency in reading and listening, relative to those of matched control groups. The experiment was carried on for another year and the gains were found to have been sustained, and extended to writing and English grammar also. Interestingly, this enhancement in second language proficiency was found to have a positive effect upon children's proficiency in the first language also.

**Keywords**: reading, second language reading, comprehensible input, extensive reading, free voluntary reading, focus on form

# Book Floods and Comprehensible Input Floods: Providing Ideal Conditions for Second Language Acquisition

**Francis Mangubhai**

One of the issues that all researchers appear to be in agreement is that there can be no second language (SL) learning or acquisition without language input. This is not a major hurdle in an ESL context where the SL is used widely for numerous purposes in the wider society outside the classroom. In many instances, teachers in this context are unable to communicate to their students in anything but English and hence input in sufficient quantity is likely to be provided to these learners. This situation does not obtain in the case of teaching English as a foreign language or a modern language. In these cases, teachers tend to have the same first language as the learners and therefore a substantial portion of the teaching can be, and indeed in some cases it is, conducted in the first language rather than the second.

One of the strongest proponents of input as a means of second language acquisition has been Krashen (1991; 1982; 1985). In a recent formulation of his input hypothesis he has stated that

> we acquire language by understanding messages, that 'comprehensible input' (CI) is the essential environmental ingredient in language acquisition. Comprehensible input is necessary for language acquisition, but is not sufficient. The acquirer must be 'open' to the input, i.e. have a low Affective Filter … Also, the input needs to contain 'i+1', an aspect of language that the acquirer has not yet acquired but that he or she is ready to acquire. (Krashen, 1991, p.409)

The notion of comprehensible input has been criticized on a number of different grounds by a various writers (e.g. Gregg, 1984; McLaughlin, 1987; Swain, 1985). Apart from criticisms about the difficulty of operationalizing the input hypothesis as it is currently conceptualized, research shows that predominantly meaning-focused instruction does not produce native-like grammatical competency. Evaluation of the immersion programs have shown that while students, who have been provided with comprehensible input, acquire considerable fluency

and possess discourse skills they do not show an equivalent control over a range of grammatical items. As a result of these findings Swain (1985) put forward the Comprehensible Output Hypothesis that claims that production can aid a more complete acquisition when the learner is pushed to produce appropriate language that is grammatically accurate.

Others have argued that input has two roles: that of providing messages (comprehension) and that for developing the second language (Sharwood Smith, 1986). The argument is based on cognitive psychology, more particularly the role of attention, claiming that second learner learners can focus on the language once comprehension is relatively easy and therefore does not take up all the attentional resources. In other words, it has been claimed that SL learners cannot focus on meaning and form at the same time (Mangubhai, 1991; VanPatten, 1990).

To explain how learners might use the input provided them, VanPatten (1996, pp 14-15) proposed two principles in second language input processing. The first principle has three corollaries.

*Principle 1*: Learners process input for meaning before they process it for form.

P1(a) Learners must process content words in the input before anything else.

P1(b) Learners prefer processing lexical items to grammatical items (e.g. morphological markings) for semantic information.

P1(c) Learners prefer processing "more meaningful" morphology before "less' or "nonmeaningful morphology", for example, *-ed* for simple past than the somewhat redundant subject/verb agreement.

*Principle 2*: For learners to process form that is not meaningful, they must be able to process informational or communicative content at no (or little) cost to attention.

Another process that is implicated in second language learning is noticing. Schmidt (1990; 1993) has claimed that there can be no second language learning without noticing and there is a greater probability of noticing a linguistic item if it occurs more frequently. The whole area of implicit and explicit language learning, is, however, full of debate, with results depending upon the simplicity or complexity of the rules that might be the focus of research (e.g. Reber, 1989; and by contrast Robinson, 1996). Tomlin and Villa (1994) in questioning Schmidt's definition of noticing claim that the central component of attention is not necessarily awareness but detection, which can occur without any awareness. For the purposes of the argument in this article, however, I will accept Schmidt's argument that the greater the frequency of the occurrence of a linguistic item in the input the higher the probability it will be noticed.

These principles can now be related to comprehensible input and to the subsequent Book Flood Project that is described in this article. Krashen (1985) emphasizes processing for meaning and argues that it is from such processing for meaning that the grammar of the SL is internalized. The actual mechanism for the development of the interlanguage grammar is left unspecified. This lack of specificity and the evidence from evaluation of the Canadian immersion programs has led other researchers to claim a role for focus on form for the development of the SL grammar (Doughty, 1991; Ellis, 1999; Long, 1988; Long, 1991; Long & Robinson, 1998).

It has been claimed that one source of comprehensible input is free voluntary reading (Krashen, 1993; Krashen, 1994). Much of the research that has been done in extensive reading and language acquisition has tended not to probe students about the sorts of processing behaviors they might be involved in as they read. But if one were to combine the principles put forward by VanPatten (1996) (mentioned above) to features that can be found in extensive reading programs, it might be possible to infer from the results of reading

programs that readers do attend to form once it is relatively easy to extract the meaning. And many of the reading books that were used in the Book Flood that will be described next provided comprehensible input that did not take up all the readers' attentional resources. This argument will be taken up again after the results of the Fiji Book Flood have been discussed.

## *The Fiji Book Flood Project*

The question asked in the Fiji Book Flood study (Elley & Mangubhai, 1981; Elley & Mangubhai, 1983) was: what would be the effect of daily reading of high interest, well-illustrated children's stories on the second language development of students in Grades 4 and 5?

## Subjects

Fifteen rural schools were tested using a specially prepared ESL test and 12 schools were selected and matched to produce three groups as shown in Table 1 below. Rural schools were chosen in order to ensure that the only English input students received was in the classroom. In rural Fiji, there is little sustained exposure to the second language, English, outside the classroom. Schools were chosen to represent indigenous Fijian and Indo-Fijian children. Schools in Fiji use the vernacular language as the medium of instruction for the first three years and switch to English in the fourth year. English itself is taught as a subject from Grade 1. The ESL program used by all primary schools in Fiji was an oral program that emphasized the learning of structures of the English language. The function of reading in this program, through specially prepared readers, was to consolidate structures learned in oral lessons.

The table below gives the schools and the number of students that participated in the project. It was decided that the Book Flood group would deal with reading in two ways: the sustained silent reading (McCracken, 1971), and shared book reading based on principles advocated by

Holdaway (1979). In the experimental schools, classroom teachers were asked to replace 20-30 minutes of their normal ESL program with either sustained silent reading or shared book reading, whichever the particular school had been selected to do.

Table 1 about here

The procedures used in the experiment are given in Table 2. The Control Group was given a one day workshop on how to use the structural program more effectively. New books were taken to the experimental schools approximately every 6 weeks so that over the year each school received about 250 books.

Table 2 about here

The evaluation carried out at the end of the first year is given in Table 3 below:

Table 3 about here

## ***RESULTS***

The results of the tests given at the end of the first year of experiment are given in Table 4 below.

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Residual Mean Scores were calculated for the three programs and it was found that the combined Book Flood groups were significantly better ($p<.001$) in reading comprehension and English structures but not on the other two tests. The two Book Flood groups were combined because there was no significant difference between the mean scores of the two groups. It was evident on the composition test that both the Book Flood group and the

Control group had poor control over the language when it came to writing.The results for Grade 5 are provided in Table 5 below.

Put Table 5 about here

Residual Gain Scores Means were computed for the tests. There were significant differences between the combined Book Flood groups and the control group ( $p<.001$) on reading and listening comprehension only but not on the other two measures.

On the basis of these results it was decided to carry on the project for another year in order to see whether the effects of reading might be more evident in writing after another school year. The program was carried on into Grades 5 and 6 with the same students. Table 6 gives the results for Grade 5 students (previously Grade 4).

Put Table 6 about here

There were significant differences between the Book Flood group and the control group on all tests: reading, listening and English language structures.Table 7 presents the results for the Grade 6 level.

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There were significant differences on all tests, including the test of written composition. It seemed that our hunch that the influence of reading on writing ability would take longer was justified. The differences between the writing ability of the Book Flood group and the Control group seemed quite dramatic as the samples below show. The modal mark for the Book Flood group in the written composition (based on a series of pictures) was 9 out of 10,

while the modal mark for the Control group was 2 out of 10. The first two are examples from the Book Flood group.

1. One morning when Luke's mother was washing, and the men were drinking yaqona, Luke was boiling the water.
2. One day, Tomasi's mother was washing clothes beside the river, Tomasi's father was drinking yaqona under a shady tree, Tomasi was cooking the food beside their house, and his brother was carrying buckets of water.

The next three examples are from the Control group.

3. Is there was the women in the tree. Mothe sitg in the tree there was a looking at hes mother …
4. One day there boy Seru is making the tea to drinking his morth was the colth…
5. One day morning their were a house any village by the sea …

## *Discussion*

The results show that regular reading of high interest, well-illustrated story book books has a facilitative effect upon the learning of a second language. At the end of the first year the effects of regular reading were evident in listening and reading comprehension. By the end of the second year results show that these significant differences in comprehension continued between the book flood groups and the control group but, in addition, the former group was significantly better than the latter in grammar and in writing. In addition, the Fijian children, but not the Indian, sat for a national examination in Grade 6. An examination of the results of children involved in this project showed that the Book Flood children did better than the Control Group (and better than the average achievement for rural schools) in mathematics, social sciences and in their first language, Fijian. Apparently, the effects of regular reading transferred to their ability to function in their first language also.

This brings us back to the question that was mentioned in the first part of the paper. If comprehensible input by itself is not sufficient to develop a greater and more varied control over the language as shown by the evaluation of immersion programs then why has it worked

in this project? The answer partly lies in the contextual factors that are quite different in the two situations: Canadian immersion program and the Fiji Book Flood Project. For reasons of space I will briefly list the features of the Book Flood program:

1. The Book Flood Project used simple, well-illustrated children's stories which were highly comprehensible. Many stories were of intrinsic interest to children.
2. Many stories had a lot of incremental repetition – making it easy to follow the story (cf repetition in their oral English classes but the reading activity seemed more motivating and interesting).
3. Repetition of the same stories through different publishers made meaning extraction easier and recycled the same or similar structures and vocabulary.
4. The stories frequently had memorable vocabulary (e.g. *gobble*, which students remembered three months after the first introduction of the word in a story).The purpose of reading was enjoyment; students were not tested on comprehension or asked to display what they understood in the stories.If we take a more cognitive approach to SL learning and accept that learners process input for meaning before they process it for form (VanPatten, 1996) and that such processing can take place only if there are attentional resources available, then the first three factors mentioned above would suggest that attentional resources would have been available to many of these students because of the relative ease with which meaning could be extracted. One could argue that in the Canadian immersion context there would also have been numerous instances where the easy extraction of meaning would have left learners with attentional resources that could have been devoted to processing the form. But the evidence suggests that either (a) they did not, or (b) there were insufficient number of such instances to have made an impact upon their grammatical competence to the extent that researchers were looking for.

Schmidt (1990) suggests that there is a greater chance of noticing a particular linguistic item if it occurs frequently. Particular linguistic items (and vocabulary) occurred frequently in a number of stories that had incremental development. Thus the principle of noticing could also be satisfied by input provided by extensive reading.

The Fiji Book Flood Project occurred in a context in which SL learners were learning English through a program that was going to predispose them to focus on forms. Children tended to believe that SL was learned through learning the structures of the language. That was what one paid attention to. So once these children had processed the print for meaning they could quite easily, when attentional resources were available, have turned to processing form. This could be one explanation why the Book Flood children did better on the grammar test and the writing test and showed better control over the structures of the English language than those who had a more structural exposure to the language. Other successful Book Flood projects have all occurred in contexts where learners are predisposed to attend to form: Singapore, Hong Kong and South Africa (see Elley, 1994 for discussion of these projects). In this respect the South Pacific students are quite different from the Canadian immersion students who are less inclined to focus on form because much of their language program emphasizes meaning over form.

It would seem, therefore, that the provision of comprehensible input through high interest, well-illustrated story books is compatible with the Input Hypothesis (Krashen, 1991) as well as a more cognitively oriented hypothesis that uses the construct of *attention* as a critical factor in the amount of processing that can occur (e.g. VanPatten, 1996) and these two 'theories' of second language learning can account for the results obtained in the Fiji Book Flood Project.

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**Table 1: Schools and Students**

| Book Flood Groups | | Control Group |
|---|---|---|
| **Silent Reading** | **Shared Reading** | |
| 4 rural schools: Grades 4 & 5 | 4 rural schools: Grades 4 & 5 | 4 rural schools: Grades 4 & 5 |
| 172 students | 166 students | 197 students |

**Table 2: Experimental Procedures**

| | Silent Reading | Shared-Book | Control |
|---|---|---|---|
| **In-service** | Nil – a set of notes | 3 day workshop | 1 day workshop |
| **Time** | 20-30 minutes daily | 20-30 minutes daily | Normal program |
| **Number of books** | 250 (approx.) | 250 (approx.) | Nil |
| **Pre-test/Post-tests** | Feb/Nov | Feb/Nov | Feb/Nov |

**Table 3: Evaluation at the End of the First Year**

| Grade 4 | Grade 5 |
|---|---|
| • reading comprehension test<br>• word recognition test (50 graded words)<br>• oral sentence repetition test (28 sentences) | • reading comprehension (standardized test)<br>• listening comprehension<br>• English structures<br>• composition |

**Table 4: Results at the End of First Year for Grade 4**

| Test | Possible Score | Shared Book | Silent Reading | Control |
|---|---|---|---|---|
| Reading Comprehension | 35 | 19.82 | 20.39 | 17.17 |
| English Structures | 35 | 14.92 | 14.73 | 12.05 |
| Word Recognition | 50 | 36.45 | 34.17 | 31.55 |
| Oral Sentences | 28 | 12.09 | 10.03 | 9.78 |

**Table 5: Results at the end of First Year for Grade 5**

| Test | Possible Score | Shared Book | Silent Reading | Control |
|---|---|---|---|---|
| Reading Comprehension | 32 | 17.29 | 15.50 | 13.47 |
| Listening Comprehension | 35 | 16.40 | 14.88 | 12.15 |
| English Structures | 20 | 6.62 | 6.66 | 6.02 |
| Composition | 6 | 1.97 | 1.98 | 1.71 |

**Table 6: Second Year Results using Residual Mean Scores: Grade 5**

| | Shared Book | | Silent Reading | | Control | | SB+SR vs C |
|---|---|---|---|---|---|---|---|
| | N | RM | N | RM | N | RM | F (1,225) |
| Reading Comp | 66 | 2.13 | 70 | 2.67 | 91 | -3.60 | 58.14** |
| Listening Comp | 66 | 1.10 | 70 | 0.81 | 91 | -1.45 | 28.73** |
| English Structures | 66 | 0.81 | 70 | 1.28 | 91 | -1.55 | 27.49** |
| **Total** | 66 | 4.02 | 70 | 4.78 | 91 | -6.59 | 55.21** |

RM = Residual Mean

**Table 7: Second Year Results using Residual Mean Scores: Grade 6**

| | Shared Book | | Silent Reading | | Control | | SB+SR vs C |
|---|---|---|---|---|---|---|---|
| | N | RM | N | RM | N | RM | F(1,230) |
| Reading C | 81 | 1.27 | 64 | 1.40 | 87 | -2.22 | 24.66** |
| Vocabulary Knowledge | 81 | 0.92 | 64 | 1.62 | 87 | -2.02 | 30.17** |
| English Structures | 81 | 1.65 | 64 | 1.22 | 87 | -2.46 | 24.73** |
| Written Composition | 81 | 0.52 | 64 | 0.66 | 87 | -0.99 | 25.00** |
| **Total** | 81 | 4.35 | 64 | 4.89 | 87 | -7.64 | 37.96** |